

# C61R Digital Surround Controller

Versatile, rack-mounted digital surround processor with Meridian Room Correction, based on the G61R



Meridian's C Series offers a range of robust, precision-made audio/video components designed with the custom installation market in mind, extending Meridian's strong reputation for the highest possible audio and video quality into new areas.

The line includes power amplifiers, surround processors and all the building-blocks of a powerful system for custom installation applications. All are fitted with rack-mounting ears and are equipped with remote control capability where appropriate.

The elegant matte-black rack-mount enclosures include a transparent front panel inset which can be removed for access.

The C61R is a rack-mounted processor based on Meridian's extremely popular G61 Digital Surround Controller, optimised for custom installation applications. It, in turn, is a development of the successful G68, which itself builds on the technology that went into Meridian's flagship, AAA-rated 861 surround processor, and includes the award-winning Meridian Room Correction system to manage room reverberation and improve the overall listening experience.

At the heart of the C61R is a powerful DSP engine consisting of three Motorola 56367s and a 56371 running at 150MHz – delivering in excess of 500MIPS (million instructions per second). Processing is performed at high sample rates and with 48-bit precision throughout, ensuring that all filtering, processing and other operations are carried out far, far above the limits of human hearing. The C61R is thus ideal for the very best in digital audio. For superior audio quality, incoming analogue signals are converted to 24-bit, high-sample-rate digital data via multibit Delta-Sigma converters as soon as they enter the processor, and all digital signals are relocked to minimize jitter and maintain total data integrity.

The C61R includes two 6-channel S/PDIF digital inputs (coax), four stereo Toslink optical inputs, and six stereo coax digital inputs. There is also a USB Audio input, allowing a computer system to be hooked up directly for audio replay, the processor being seen as an external audio device by the computer. In addition, there's a 6-channel analogue input, and five stereo analogue ins. All the inputs are

reconfigurable for an incredible degree of flexibility, and analogue inputs are converted to digital at high resolution – 24-bit, 96kHz.

The C61R combines controller and surround processor functions, meeting the latest THX Ultra 2 specifications and including the latest superb-quality AAC, MPEG, DTS, Dolby, Trifield and Ambisonic (both 2-channel UHJ and B-Format, to 4, 5, 6 or 7 speakers) decoding. The decoders consist almost exclusively of our own code, giving them superior integration with the Meridian design philosophy, as well as superior performance.

The C61's 'Smart Source' feature continually monitors the digital inputs and automatically loads the correct decoding software for the format, speaker layout and encoding of the incoming signal. This capability is enhanced by MHR SmartLink, which provides a digital link between a Meridian optical disc player and processor, carrying explicit information about the nature of the datastream.

You can also store separate user parameters for each source (such as DVD) depending on whether the incoming signal is stereo or surround, so that any source material is played with the DSP mode of your choice.

The C61R features eight analogue outputs for front, rear, centre and sub connections, plus two additional outputs for other applications. Ten digital surround outputs are provided, including front, rear, side, centre/sub and again include an additional output pair.

**Includes Meridian's powerful Room Correction system**

**5 digital optical and 6 digital coax stereo inputs  
5 stereo analogue inputs**

**10 digital surround and 8 analogue surround outputs**

**Analogue and 2 digital multichannel inputs**

**Powerful DSP engine with four processors delivering over 500MIPS**

**On-board AAC decoding, plus Dolby Digital, DTS, MPEG, Ambisonics and acclaimed Trifield decoding**

**THX Surround EX Ultra 2 certified**



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The C61R can be configured with a powerful Windows graphical set-up application (downloadable from the Meridian web site), which allows access to all the unit's functions and configuration. However, the C61R can also be configured extensively from the front panel, thanks to the comprehensive 'soft-key' based user interface like that employed on Meridian's G Series components. 'Wizards' lead you through the configuration procedure, allowing

a powerful degree of customization without having to hook up a computer. The C61's firmware can be updated via serial link with files downloaded for the Meridian web site. Two serial connectors are provided: one on the rear panel for integration into industry-standard home automation systems, and one on the front panel allowing rapid access for computer-based system reconfiguration. A rear panel USB port is also provided that can be used for the latter application.

## Outline Specifications

### C61R Digital Surround Controller

<b>Inputs:</b>	<i>Digital Inputs:</i> 4 x Toslink optical in, 6 coax S/PDIF stereo in, 2 x 6-ch MHR coax in; USB Audio input. <i>Analogue Input:</i> 5 x stereo, 1 x 6-ch analogue in, unbalanced
<b>Outputs:</b>	<i>Digital outputs (S/PDIF coax):</i> Main L/R, Centre/Sub, sides, rears; A/B (configurable); <i>Analogue outputs (phono):</i> Main L, Main R, Rear L, Rear R, Centre, Sub; LZ, RZ (configurable)
<b>Analogue ins:</b>	0.5–2.5Vrms adjustable, input impedance 20k $\Omega$
<b>Analogue outs:</b>	Variable between 0 and 3.5Vrms, output impedance 47 $\Omega$ . Distortion <0.01%. Noise & hum <-95dB CCIR
<b>Control:</b>	2 x DIN and 1 x BNC Meridian Comms, 3 x Trigger (+12v, 150mA), IR in, USB, 2 x RS232 (front + rear panels) remote control/configuration
<b>Processing:</b>	3 x Motorola 56367s and a 56371 running at 150MHz to give a total of over 500MIPS (million instructions per second). 48-bit arithmetic throughout
<b>Conversion:</b>	24-bit Sigma-Delta converter chips operating at up to 96 kHz on analogue inputs and outputs
<b>Controls:</b>	Front-panel soft buttons allow extensive system configuration. Display on/off button. Full remote control via MSR+ and RS232 serial. Serial and USB link also used for firmware updates. Config via serial/USB or front panel
<b>Display:</b>	Multi-character matrix Vacuum Fluorescent Display
<b>Indicators:</b>	Power LED
<b>Formats:</b>	Include AAC, Dolby Digital, DTS, MPEG Surround,
<b>DSP Modes:</b>	Include Direct, Music, Trifield, Ambisonics (2-ch UHJ & B-Format), Super Stereo, Music Logic, THX, Mono, Discrete, TV Logic, ProLogic IIx Music, ProLogic IIx Movie, ProLogic IIx THX, Cinema and up to 10 user-defined. Meridian Room Correction
<b>Power:</b>	Universal supply 100–240V, 50–60Hz, 25W
<b>Dimensions</b>	
Main enclosure	435 x 82 x 250 mm (17.25 x 3.25 x 9.75 in) W x H x D
Front panel	485 x 87.5 x 12 mm (19 x 3.45 x 0.5 in) W x H x D
<b>Weight</b>	TBC kg (xx lb)

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